Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended): A method for delivery of a chemical or biological entity to ~~a target tissue or cellular surface~~ a segment of vascular tissue of a patient comprising:

binding a molecule to ~~said tissue or cellular~~ the surface of said vascular tissue segment, wherein said molecule comprises at least one reactive group that reacts with groups present on said surface of said vascular tissue segment, and at least one signaling molecule;

attaching said chemical or biological entity to said signaling molecule by means of a recognition molecule, wherein said recognition molecule is specific for said signaling molecule, wherein the recognition molecule and the signaling molecule have an affinity for each other;

wherein said reactive group binds covalently to said ~~tissue or cellular surface~~vascular tissue segment, and

wherein said delivery steps can be effected under conditions tolerable *in vivo*.

2. (currently amended): The method of Claim 1, wherein said molecule further comprises a polymer that masks adhesive information inherent to ~~the tissue or cellular~~ said surface of said vascular tissue segment.

3. (currently amended): The method of Claim 1, wherein said covalent binding modifies said surface of said vascular tissue segment ~~is vascular tissue and where the modified tissue surface provides~~ to provide a target for subsequent delivery of the chemical or biological entity.

4. (canceled)

5. (previously presented): The method of Claim 1, wherein said reactive group is selected from the group consisting of an ester, anhydride, isocyanate, aldehyde, tosylate, tresylate, epoxide, maleimide and a N-hydroxy-succinimide.

6. (withdrawn): The method of Claim 1, wherein the reactive group is a cycloester, cycloanhydride or isocyanate.

7. (previously presented): The method of Claim 1, wherein the reactive group in the molecule N-hydroxy-succinimide-biotin (NHS-biotin) is N-hydroxy-succinimide.

8. (original): The method of Claim 2, wherein the polymer is polyethylene glycol.

9. (original): The method of Claim 8, wherein the reactive group is N-hydroxy-succinimide.

10. (original): The method of Claim 1, wherein delivery is of a chemical entity.

11. (currently amended): The method of Claim 10, wherein said chemical entity is a pharmaceutical agent in a form selected from the group consisting of molecular, liposomal, micellar and ~~solid~~ particulate.

12. (original): The method of Claim 11, wherein said pharmaceutical agent is an anti-thrombotic agent, an antimitotic agent, or a chemotherapeutic agent.

13. (previously presented): The method of Claim 10, wherein said chemical agent is a contrast or imaging agent.

14. (withdrawn): The method of Claim 1, wherein delivery is of a biological entity.

15. (withdrawn): The method of Claim 14, wherein said biological entity is a modified or unmodified cell.

16. (withdrawn): The method of Claim 15, wherein said biological entity is a chemically modified cell.

17. (withdrawn): The method of Claim 15, wherein said biological entity is a genetically modified cell.

18. (withdrawn): The method of Claim 1, wherein delivery is of a viral vector, non-viral vector or naked nucleic acid sequence.

19. (previously presented): The method of Claim 1, wherein said signaling molecule/recognition molecule combination is selected from the group consisting of biotin/avidin; ligand/receptor; antibody/antigen; primary antibody/secondary antibody; protein A/fc IgG1; and protein c/fc IgG1.

20. (canceled)

21. (withdrawn): A tissue surface that has been modified by binding to the surface a molecule, wherein said molecule comprises at least one reactive group that reacts with groups present on said surface, and at least one signaling molecule.

22. (withdrawn): A cellular surface that has been modified by binding to the surface a molecule, wherein said molecule comprises at least one reactive group that reacts with groups present on said surface, and at least one signaling molecule.

23. (previously presented): The method of Claim 1, wherein said delivery steps can be effected in from about 1 to about 2 minutes, and wherein the groups present on the tissue or cellular surface are selected from the group consisting of amines and hydroxyl groups.

24. (previously presented): The method of Claim 1, wherein said reactive group is selected from the group consisting of an ester, anhydride, isocyanate, aldehyde, tosylate, tresylate, epoxide, malemide and a N-hydroxy-succinimide, and mixtures thereof and the signaling molecule/recognition molecule is selected from the group consisting of biotin/avidin; ligand/receptor; antibody/antigen; primary antibody/secondary antibody; protein A/fc IgG1; and protein c/fc IgG1.

25. (previously presented): The method of Claim 1, wherein the chemical or biological entity is a microbubble ultrasound contrasting agent, which can be delivered locally.

26. (previously presented): The method of Claim 1, wherein the delivery of the chemical or biological entity is local or systemic.

27. (previously presented): The method of Claim 1, wherein the delivery of the chemical or biological entity is local.

28. (canceled)

29. (currently amended): The method of Claim 1, wherein the signaling molecule includes any group that will function to signal the recognition molecule absent compatibility problems between the signaling molecule and the recognition molecule.

30. (new) A method for delivery of a chemical or biological entity to a segment of vascular tissue of a patient comprising:

covalently binding a molecule comprising a reactive molecule and a signaling molecule, said molecule comprising N-hydroxy-succinimide-biotin, said reactive molecule comprising N-hydroxy-succinimide, and said signaling molecule comprising biotin, wherein said N-hydoxy-succinimide reacts with groups present on said vascular tissue segment;

attaching said chemical or biological entity to said biotin signaling molecule by means of a recognition molecule comprising avidin, wherein said avidin recognition molecule and said biotin signaling molecule have an affinity for each other; and wherein said delivery steps can be effected under conditions tolerable *in vivo*.

31. (new) The method of Claim 30, wherein said molecule further comprises polyethylene glycol, wherein said polyethylene glycol masks adhesive information inherent to said vascular tissue segment.

32. (new) The method of Claim 30, wherein said vascular tissue comprises endothelial cells.